

REMARKS

Applicants have cancelled claims 1-28, which are drawn to non-elected subject matter. Claims 29-57 are now pending. Reconsideration of this application is requested in view of the following remarks.

Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejects claims 29, 40, and 47 on the ground that the term “deleted” recited therein is indefinite. Further, he asserts that “if X is ‘deleted’ there is no direction or explanation as to what happens with R1 or the valence on the N to which X is bound.” See the Office Action, page 3, lines 1-3. Applicants disagree.

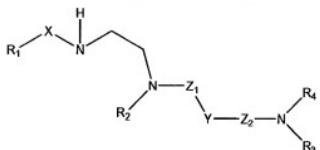
The term “deleted” is commonly assigned to a variable in a chemical formula recited in a claim to denote absence of the variable from the formula. Applicants have attached hereto as “Exhibit A” three sheets from US Patents 5,496,927, 5,620,959, and 6,645,999, each sheet containing a claim (i.e., claim 1) which recites the term “deleted.”

Referring back to the issue raised by the Examiner, a skilled person in the art would understand that when X is “deleted,” R₁ and the N atom, the two moieties bound to X, will be linked directly via a covalent bond.

Rejection under 35 U.S.C. § 103

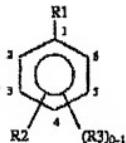
The Examiner rejects claims 29, 40, and 47 for obviousness, relying on Keana et al., U.S., Patent No. 5,567,411 (the ‘411 patent), in view of Keana, US Patent No. 5,252,317 (the ‘317 patent).

Claims 29 and 40 each cover compounds having the following formula:



Claim 47 covers a composition containing a compound of the above formula.

The '411 patent describes a general formula of



wherein R₂ and R₃ (if present) are substituted amines. This patent further defines "substituted amines" as follows (see column 4, lines 19-44; emphasis added):

As substituted amines, R₂ and R₃ have the structure:

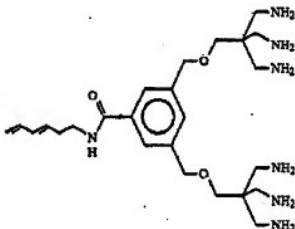


wherein R₈ and R₉ can be the same or different. R₈ and R₉ can be a hydrogen or a group having the structure R₁₀—(R₁₁)—(R₁₂)₀₋₁(R₁₃)_n, wherein n is either 1 or 2. At least one of R₈ and R₉, however, has the R₁₀—(R₁₁)—(R₁₂)₀₋₁(R₁₃)_n structure. R₁₀ is at least one structure selected from a group consisting of "linkers" and "branch groups" (as defined herein). When R₁₀ comprises more than one linker and/or branch group, each of said linkers and/or branch groups is covalently bonded together in a series manner to form R₁₀. R₁₁ can be any of the following groups: —NH—C(O)—, —C(O)—NH—, —C(O)—, —NH—C(S)—, —C(S)—NH—, —NH—C(O)—NH—, —NH—C(S)—NH—, —NH—C(O)—O—; —O—C(O)—NH—, —C(O)—O—, or —O—C(O)—. R₁₂ can be an aryl group, a C₁—C₁₂ alkyl group, a (C₁—C₁₂ alkyl)-aryl group, a cycloalkyl group, an aryl-(C₁—C₁₂ alkyl) group, or a combination thereof. Finally, R₁₃ is an "active group," as defined herein.

Among the variables recited in the above-quoted paragraph, R₁₀ corresponds to the ethylene group (i.e., CH₂CH₂) between the two N atoms on the left side of the formula recited in claims 29, 40, and 47. It is a linker or a branch group. See the above underlined passage. A linker is defined to contain a functional group such as C(O)-NH, C(S)-NH, C(O), NH-C(O), NH-C(S), NH-C(S)-NH, NH-C(O)-NH, NH-C(O)-O-, O-C(O)-NH, C(O)-O, or O-C(O). See column 4, lines 45-55. A branch group is defined as

a moiety containing more than one branches. See column 4, line 56 through column 5, line 54. Ethylene is neither a linker nor a branch group, since it is free of any functional group and does not contain more than one branches. It follows that the compounds described in the '411 patent does not contain an ethylene moiety to link two nitrogen atoms as required in claims 29, 40, and 47. In other words, the '411 patent does not teach or suggest the compounds called for in claims 29, 40, and 47.

The '317 patent does not cure this deficiency. Like the '411 patent, this reference teaches a compound including one or more branch groups. For example, the compound (shown below), which is referred to by the Examiner as the most close to the claimed compounds (see the Office Action, page 5, line 1), contains two branch groups, i.e., $\text{CH}_2\text{C}(\text{CH}_2)_3$:



Thus, the '317 patent also does not teach or suggest the ethylene moiety in the compounds called for in claims 29, 40, and 47.

As neither the '411 patent nor the '317 patent teaches or even suggests the ethylene moiety linking the two N atoms as required by claims 29, 40, and 47, a combination of these two patents also fails to do so. Claims 29, 40, and 47 are therefore not rendered obvious by these two patents.

Elected subject matter

In response to the restriction requirement, Applicants elected Group III, including claims 29-57, for examination. The Examiner asserts in the Office Action that, while

Applicant(s) : Kak-Shan Shia et al.
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independent claims 29, 40, and 47 are examined, claims 30-39, 41-46, and 48-57 have been withdrawn from further consideration.

Applicants disagree. As indicated in the restriction requirement, claims 29-57 all cover the elected subject matter and should be considered together.

In addition, as claims 30-39 depend from claim 29, claims 41-46 depend from claim 40, and claims 48-57 depend from claim 47, these claims are also patentable for the same reasons set forth above in the discussion of claims 29, 40, and 47. In other words, examination of claims 30-39, 41-46, and 48-57 would impose little or no burden on the Examiner.

It is respectfully requested that claims 30-39, 41-46, and 48-57 be examined together with claims 29, 40, and 47.

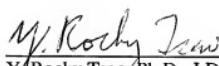
CONCLUSION

In view of the above remarks, Applicants submit that claims 29-57, as pending, cover subject matter that is definite and novel over the cited prior art. It is respectfully requested that the Examiner allow all of the pending claims.

Please apply any other charges to Deposit Account No. 50-4189, referencing Attorney Docket No. 60001-003001.

Respectfully submitted,

Date: 9-4-07



Y/Rocky Tsao, Ph.D., J.D.
Attorney for Applicants
Reg. No. 34,053

Customer No. 69713
Occhiuti Rohlicek & Tsao LLP
10 Fawcett Street
Cambridge, MA 02138
Telephone: (617) 500-2503
Facsimile: (617) 500-2499